BRUHAT BENGALURU MAHANAGARA PALIKE

MEASUREMENT SHEET

RA 1ST AND FINAL BILL

Name of work: Improvements to Roads and Drains at Hanuman Layout, Yelagamma Layout Anjaneya Temple and Surrounding areas in Ward No. 13, (Doddabommasandra).

Estimated Cost : Rs. 30.00 Lakhs

Head of Account : P-3726 Zonal Public Works - POW Works

Job Code: 013-23-000010

Name of Agency: M/s. Sri Chowdeshwari Constructions, Prop: Sri Sharath J N, No. 405, 3rd Cross, New BEL Road, Devasandra, Chikkamaranahalli, Bangalore - 560054.

Work order No: BMP/EE/BTP/WO/182/2022-23 D: 20-03-2023.

	Measurements Recarded on :	04-05-2023									
Sl No	Description of work	Mesurement						Qty.	Unit	Rate	Amount
		No.	L	B1	B2	Av.B	D				
1	Removing and resetting of footpath slab (Approved arrival rate)										
	Qty as per Premeasurement Recorded vide E-Bill Page No. 01 to 02 is							276.30	Sqm	235.00	64931.00
2	Earth work Excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work.										
	Qty as per Premeasurement Recorded vide E-Bill Page No. 03 to 04 is							124.33	Cum	180.00	22379.00
3	Providing and Fixing pre cast Covering Slab 100 mm thick made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc, complete. As per Engineer incharge										
	Yelagamma Layout 6th Cross										
	RHS	39	0.60			0.90		21.06			
		26	0.60			0.90		14.04			
	LHS	19	0.60			0.90		10.26			
		29	0.60			0.90		15.66			
								61.02			
								60.75	Sqm	1500.00	91125.00

AEE (VRP) SD

Assistant Engineer
Ward No. 13

Assistant Executive Engineer
Vidyaranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

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SI No	Description of work	Mesurement No.	L	B1	B2	Av.B	D	Qty.	Unit	Rate	Amount
	Measurements Recarded on :	04.05.2023									
4	Dismantling of cement concrete pavement by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 m3 in volume and stock piling at designated locations and disposal of dismantled materials and stacking serviceable and unserviceable materials separately										
	Qty as per Premeasurement Recorded vide E-Bill Page No. 05 to 06 is							**245.60**	Cum	400.00	**98240.00**
5	Construction of Dry Lean Cement Concrete Sub- base over a prepared sub-grade with coarse and fine aggregate conforming to IS: 383, the size of coarse aggregate not exceeding 25 mm,aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per table 600-1, cement content not to be less than 150 kg/ m3 , optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver with electronic sensor, compacting with 8-10 t vibratory roller, finishing and curing.										
	Qty as per Premeasurement Recorded vide E-Bill Page No. 07 to 08 is							**184.20**	Cum	3400.00	**626280.00**
6	Providing and constructing un-reinforced plain Cement Concrete Pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS: 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including construction joints, primer, sealant, curing of concrete slabs for 14- days, and water finishing to lines and grade as per drawing and technical specification clause 1501 with all lead, lifts, loading & unloading charges, cost and conveyance of all materials, labour, equipments etc., complete MORTH Specification No.1501 . as per the directions of the Engineer-in-charge of the work.										
	CC Road										
	Yelagamma Layout 6th A Cross CC&FC	1	15.00	4.00	3.80	3.90	0.15	8.78			
		1	15.00	3.80	4.15	3.98	0.15	8.94			
		1	15.00	4.15	4.00	4.08	0.15	9.17			
		1	15.00	4.00	3.90	3.95	0.15	8.89			
		1	15.00	3.90	4.45	4.18	0.15	9.39			
		1	15.00	4.45	4.20	4.33	0.15	9.73			
		1	8.70	4.20	3.90	4.05	0.15	5.29			
	Deduction										
	Chamber	-1	1.00			0.70	0.15	-0.11			
	Manhole	-1	0.64	Area of Circle = (3.142*0.9*0.9)/4 = 0.64			0.15	-0.10			
	Yelagamma Layout 6th D Cross										
	CC&FC	1	15.00	4.70	4.60	4.65	0.15	10.46			
		1	15.00	4.60	4.70	4.65	0.15	10.46			
		1	15.00	4.70	4.60	4.65	0.15	10.46			
		1	15.00	4.60	4.80	4.70	0.15	10.58			
		1	15.00	4.80	4.60	4.70	0.15	10.58			

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Sl No	Description of work	Mesurement No.	L	B1	B2	Av.B	D	Qty.	Unit	Rate	Amount
		1	15.00	4.60	3.80	4.20	0.15	9.45			
		1	1.40	3.80	3.80	3.80	0.15	0.80			
	Deduction										
	Manhole	-2	0.64	Area of Circle = (3.142*0.9*0.9)/4 = 0.64			0.15	-0.19			
	Yelagamma Layout 6th F Cross										
		1	15.00	3.30	2.80	3.05	0.15	6.86			
		1	15.00	2.80	3.00	2.90	0.15	6.53			
		1	15.00	3.00	3.40	3.20	0.15	7.20			
		1	1.80	3.40	3.40	3.40	0.15	0.92			
		1	9.30	3.30	3.60	3.45	0.15	4.81			
	Deduction										
	Manhole	-1	0.64	Area of Circle = (3.142*0.9*0.9)/4 = 0.64			0.15	-0.10			
	Yelagamma Layout 6th I Cross										
		1	3.00	4.00	3.70	3.85	0.15	1.73			
		1	15.00	4.90	5.20	5.05	0.15	11.36			
		1	15.00	5.20	4.30	4.75	0.15	10.69			
		1	1.60	4.30	4.30	4.30	0.15	1.03			
	Deduction										
	Manhole	-1	0.64	Area of Circle = (3.142*0.9*0.9)/4 = 0.64			0.15	-0.10			
	Yelagamma Layout 6th G Cross										
		1	19.80	3.80	4.00	3.90	0.15	11.58			
								185.10			
								184.20	Cum	5500.00	**1013100.00**
7	Loading and Unloading of Stone Boulder / Stone aggregates / Sand / Kankar / Moorum. (Tipper 14 m3)										
	Qty Vide 90% of Item No - (2 + 4)							332.94			
	Total							**332.94**	Cum	70.00	**23306.00**
8	Cost of Haulage Excluding Loading and Unloading Taking output 18 t load and lead 10 km = 180 t.km										
	Qty frm Item No-07		332.94			1.28		426.15			
								426.15	T.Km	105.00	**44746.00**
										Grand Total =	**1984107.00**
										GST Charges (18% of estimated cost) =	**357139.00**
										Total Amount =	**2341246.00**

AEE (VRP) SD

AEE (VRP) SD

Assistant Engineer
Ward No. 13

Assistant Executive Engineer
Vidyaranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P., Bangalore - 97

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BRUHAT BENGALURU MAHANAGARA PALIKE

MEASUREMENT SHEET

RA 1ST AND FINAL BILL

Name of work: Improvements to Roads and Drains at Hanuman Layout, Yelagamma Layout Anjaneya Temple and Surrounding areas in Ward No. 13, (Doddabommasandra).

Estimated Cost : Rs. 30.00 Lakhs

Head of Account : P-3726 Zonal Public Works - POW Works

Job Code: 013-23-000010

Name of Agency: M/s. Sri Chowdeshwari Constructions, Prop: Sri Sharath J N, No. 405, 3rd Cross, New BEL Road, Devasandra, Chikkamaranahalli, Bangalore - 560054.

Work order No: BMP/EE/BTP/WO/182/2022-23 D: 20-03-2023.

	Measurements Recarded on :	29-03-2023							
Sl No	Description of work	Mesurement						Qty.	Unit
		No.	L	B1	B2	Av.B	D		
1	Removing and resetting of footpath slab (Approved arrival rate)								
	Drain Covering Slab								
	Yelagamma Layout 6th A Cross								
	RHS	1	10.30				0.75	7.73	
		1	12.50				0.75	9.38	
		1	10.30				0.75	7.73	
		1	5.60				0.75	4.20	
		1	6.50				0.75	4.88	
		1	9.50				0.75	7.13	
		1	8.70				0.75	6.53	
	LHS								
		1	10.60				0.75	7.95	
		1	3.50				0.75	2.63	
		1	9.50				0.75	7.13	
		1	12.60				0.75	9.45	
		1	10.50				0.75	7.88	
		1	5.50				0.75	4.13	
	Yelagamma Layout 6th C Cross								
	RHS	1	9.50				0.75	7.13	
		1	10.60				0.75	7.95	
		1	12.80				0.75	9.60	
		1	10.60				0.75	7.95	
		1	12.60				0.75	9.45	
		1	10.50				0.75	7.88	
	LHS								
		1	6.50				0.75	4.88	

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Pre-Measurement

Sl No	Description of work	Mesurement No.	L	B1	B2	Av.B	D	Qty.	Unit
		1	12.20				0.75	9.15	
		1	10.20				0.75	7.65	
		1	6.50				0.75	4.88	
		1	10.20				0.75	7.65	
		1	6.90				0.75	5.18	
	Yelagamma Layout 6th D Cross								
	RHS	1	9.50						
		1	5.60				0.75	7.13	
		1	6.20				0.75	4.20	
		1	6.20				0.75	4.65	
		1	5.60				0.75	4.65	
	LHS	1	4.50				0.75	4.20	
							0.75	3.38	
		1	6.80						
		1	4.80				0.75	5.10	
		1	5.50				0.75	3.60	
		1	6.80				0.75	4.13	
		1	6.50				0.75	5.10	
		1	5.30				0.75	4.88	
	Yelagamma Layout 6th F Cross						0.75	3.98	
	RHS								
	\	1	6.50				0.75	4.88	
		1	12.60				0.75	9.45	
		1	2.60				0.75	1.95	
		1	5.50				0.75	4.13	
	LHS								
		1	8.60				0.75	6.45	
		1	6.50				0.75	4.88	
		1	5.50				0.75	4.13	
		1	2.20				0.75	1.65	
	Yelagamma Layout 6th I Cross								
	LHS	1	5.80				0.75	4.35	
	\	1	7.80				0.75	5.85	
			Total Qty =					**278.70**	
			Qty Ltd to Tender Qty =					**276.30**	**Sqm**

AEE (VRP) SD

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Assistant Engineer
Ward No. 13

Assistant Executive Engineer
Vidyaranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

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Sl No	Description of work	Mesurement No.	L	B1	B2	Av.B	D	Qty.	Unit
	Measurements Recarded on :	31-03-2023							
2	Earth work Excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work.								
	Drain Desilting								
	Yelagamma Layout 6th A Cross								
	RHS	1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	1.76	
		1	8.70						
	LHS								
		1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
		1	8.10			0.45	0.45	1.64	
	Yelagamma Layout 6th C Cross								
	RHS	1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
		1	14.50			0.45	0.45	2.93	
	LHS								
		1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
		1	14.50			0.45	0.45	2.93	
	Yelagamma Layout 6th D Cross								
	RHS	1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
						0.45	0.45	3.03	

AEE (VRP) SD

AEE (VRP) SD

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Sl No	Description of work	Mesurement						Qty.	Unit
		No.	L	B1	B2	Av.B	D		
		1	14.50			0.45	0.45	2.93	
	LHS								
		1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
		1	14.50			0.45	0.45	2.93	
	Yelagamma Layout 6th F Cross								
	RHS	1	15.00			0.45	0.45	3.03	
	\	1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
		1	9.30			0.45	0.45	1.88	
	LHS								
		1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
		1	15.00			0.45	0.45	3.03	
		1	5.50			0.45	0.45	1.11	
	Yelagamma Layout 6th I Cross								
	LHS	1	15.00			0.45	0.45	3.03	
	\	1	15.00			0.45	0.45	3.03	
		1	2.00			0.45	0.45	0.40	
			Total Qty =					**136.68**	
			Qty Ltd to Tender Qty =					**124.33**	Cum

Assistant Engineer
Ward No. 13

Assistant Executive Engineer
Vidyaranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

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Sl No	Description of work	Mesurement						Qty.	Unit
		No.	L	B1	B2	Av.B	D		
	Measurements Recarded on :	06-04-2023							
4	Dismantling of cement concrete pavement by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 m3 in volume and stock piling at designated locations and disposal of dismantled materials and stacking serviceable and unserviceable materials separately								
	CC Road Dismantling								
	Yelagamma Layout 6th A Cross								
		1	15.00	4.00	3.80	3.90	0.20	11.70	
		1	15.00	3.80	4.15	3.98	0.20	11.93	
		1	15.00	4.15	4.00	4.08	0.20	12.23	
		1	15.00	4.00	3.90	3.95	0.20	11.85	
		1	15.00	3.90	4.45	4.18	0.20	12.53	
		1	15.00	4.45	4.20	4.33	0.20	12.98	
		1	8.70	4.20	3.90	4.05	0.20	7.05	
	Deduction								
	Chamber	-1	1.00			0.70	0.20	-0.14	
	Manhole	-1	0.64	Area of Circle = (3.142*0.9*0.9)/4 = 0.64			0.20	-0.13	
	Yelagamma Layout 6th D Cross							AEE (VRP) SD	
		1	15.00	4.70	4.60	4.65	0.20	13.95	
		1	15.00	4.60	4.70	4.65	0.20	13.95	
		1	15.00	4.70	4.60	4.65	0.20	13.95	
		1	15.00	4.60	4.80	4.70	0.20	14.10	
		1	15.00	4.80	4.60	4.70	0.20	14.10	
		1	15.00	4.60	3.80	4.20	0.20	12.60	
		1	1.40	3.80	3.80	3.80	0.20	1.06	
	Deduction								
	Manhole	-2	0.64	Area of Circle = (3.142*0.9*0.9)/4 = 0.64			0.20	-0.26	
	Yelagamma Layout 6th F Cross							AEE (VRP) SD	
		1	15.00	3.30	2.80	3.05	0.20	9.15	
	\	1	15.00	2.80	3.00	2.90	0.20	8.70	
		1	15.00	3.00	3.40	3.20	0.20	9.60	
		1	1.80	3.40	3.40	3.40	0.20	1.22	
		1	9.30	3.30	3.60	3.45	0.20	6.42	
	Deduction								
	Manhole	-1	0.64	Area of Circle = (3.142*0.9*0.9)/4 = 0.64			0.20	-0.13	
	Yelagamma Layout 6th I Cross								
		1	3.00	4.00	3.70	3.85	0.20	2.31	

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No	Description of work	Mesurement						Qty.	Unit
		No.	L	B1	B2	Av.B	D		
		1	15.00	4.90	5.20	5.05	0.20	15.15	
		1	15.00	5.20	4.30	4.75	0.20	14.25	
	Deduction	1	1.60	4.30	4.30	4.30	0.20	1.38	
	Manhole	-1	0.64	Area of Circle = (3.142*0.9*0.9)/4 = 0.64			0.20	-0.13	
	Yelagamma Layout 6th G Cross								
		1	19.80	3.80	4.00	3.90	0.20	15.44	
			Total Qty =					**246.80**	
			Qty Ltd to Tender Qty =					**245.60**	Cum

AEE (VRP) SD

Assistant Engineer
Ward No. 13

Assistant Executive Engineer
Vidyaranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

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Sl No	Description of work	Mesurement						Qty.	Unit
		No.	L	B1	B2	Av.B	D		
	Measurements Recarded on :	10-04-2023							
5	Construction of Dry Lean Cement Concrete Sub- base over a prepared sub-grade with coarse and fine aggregate conforming to IS: 383, the size of coarse aggregate not exceeding 25 mm,aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per table 600-1, cement content not to be less than 150 kg/ m3 , optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver with electronic sensor, compacting with 8-10 t vibratory roller, finishing and curing.								
	CC Road								
	Yelagamma Layout 6th A Cross								
		1	15.00	4.00	3.80	3.90	0.15	8.78	
		1	15.00	3.80	4.15	3.98	0.15	8.94	
		1	15.00	4.15	4.00	4.08	0.15	9.17	
		1	15.00	4.00	3.90	3.95	0.15	8.89	
		1	15.00	3.90	4.45	4.18	0.15	9.39	
		1	15.00	4.45	4.20	4.33	0.15	9.73	
		1	8.70	4.20	3.90	4.05	0.15	5.29	
	Deduction								
	Chamber	-1	1.00			0.70	0.15	-0.11	
	Manhole	-1	0.64	Area of Circle = (3.142*0.9*0.9)/4 = 0.64			0.15	-0.10	
	Yelagamma Layout 6th D Cross							AEE (VRP) SD	
		1	15.00	4.70	4.60	4.65	0.15	10.46	
		1	15.00	4.60	4.70	4.65	0.15	10.46	
		1	15.00	4.70	4.60	4.65	0.15	10.46	
		1	15.00	4.60	4.80	4.70	0.15	10.58	
		1	15.00	4.80	4.60	4.70	0.15	10.58	
		1	15.00	4.60	3.80	4.20	0.15	9.45	
		1	1.40	3.80	3.80	3.80	0.15	0.80	
	Deduction								
	Manhole	-2	0.64	Area of Circle = (3.142*0.9*0.9)/4 = 0.64			0.15	-0.19	
	Yelagamma Layout 6th F Cross							AEE (VRP) SD	
		1	15.00	3.30	2.80	3.05	0.15	6.86	
	\	1	15.00	2.80	3.00	2.90	0.15	6.53	
		1	15.00	3.00	3.40	3.20	0.15	7.20	
		1	1.80	3.40	3.40	3.40	0.15	0.92	
		1	9.30	3.30	3.60	3.45	0.15	4.81	
	Manhole	-1	0.64	Area of Circle = (3.142*0.9*0.9)/4 = 0.64			0.15	-0.10	
	Yelagamma Layout 6th I Cross								

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Sl No	Description of work	Mesurement						Qty.	Unit
		No.	L	B1	B2	Av.B	D		
		1	3.00	4.00	3.70	3.85	0.15	1.73	
		1	15.00	4.90	5.20	5.05	0.15	11.36	
		1	15.00	5.20	4.30	4.75	0.15	10.69	
		1	1.60	4.30	4.30	4.30	0.15	1.03	
	Deduction								
	Manhole	-1	0.64	Area of Circle = (3.142*0.9*0.9)/4 = 0.64			0.15	-0.10	
	Yelagamma Layout 6th G Cross								
		1	19.80	3.80	4.00	3.90	0.15	11.58	
			Total Qty =					**185.10**	
			Qty Ltd to Tender Qty =					**184.20**	Cum

AE (VRP) SD

Assistant Engineer
Ward No. 13

Assistant Executive Engineer
Vidyaranyapura Sub Division

Assistant Executive Engi...
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

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